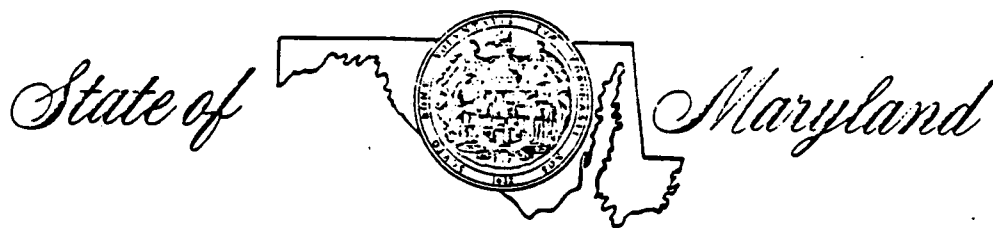


APPENDIX A

Present NPDES Permit for BRESKO



OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 •

TTY FOR DEAF: Balto. Area 383-7555
D.C. Metro 565-0451

Audie Wilzack, R.N., M.S., Secretary DISCHARGE PERMIT

William M. Eichbaum, Assistant Secretary

STATE DISCHARGE PERMIT NUMBER	83-DP-2119A
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EFFECTIVE DATE OF MODIFICATION	October 1, 1986
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NPDES PERMIT NUMBER	MD0060640A
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EFFECTIVE DATE	January 2, 1984
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EXPIRATION DATE	January 2, 1989
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Pursuant to the provisions of Title 9 of the Health-Environmental Article, Annotated Code of Maryland and regulations promulgated thereunder and the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq. and implementing regulations 40 CFR Parts 122, 123, 124 and 125, the Department of the Health and Mental Hygiene, hereinafter referred to as "DHMH" hereby authorizes

Baltimore Refuse Energy Systems Company
1801 Annapolis Road
Baltimore, Maryland 21230

TO DISCHARGE FROM
a resource recovery facility

LOCATED AT
1801 Annapolis Road, Baltimore (City), Maryland

VIA OUTFALLS
001, 002, 003, 004, and 005 as identified and described
herein

TO
Middle Branch Patapsco River (001, 002) and Gwynns Falls (003, 004, 005)
which are classified for water contact recreation, for fish, other aquatic
life, and wildlife

in accordance with the following special and general conditions, and map
made a part hereof.

I. Special Conditions

B. DEFINITIONS

1. The "daily maximum" effluent limitation by concentration means the highest allowable reading of any daily determination of concentration.
2. "Daily determination of concentration" means one analysis performed on any given sample representing 24 hours flow, with one number in mg/l as an outcome.
3. "Grab Sample" means an individual sample collected in less than 15 minutes.
4. The "monthly average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during any calendar month, or during the operating month if flows are of shorter duration.
5. The "daily maximum" temperature means the highest temperature observed during a 24-hour period or during the operating day if flows are of shorter duration.
6. "Estimated" flow means a calculated volume or discharge rate which is based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.

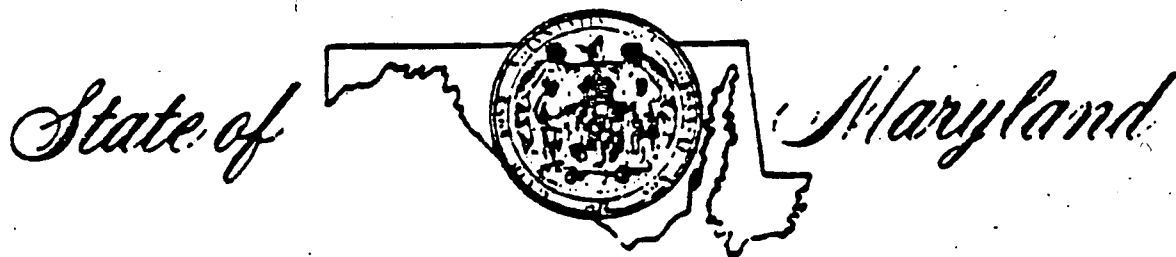
C. POST OPERATIONAL STUDIES

Within three months of the effective date of issuance of this permit, permittee shall submit to the Department for approval study plans to investigate: a) the thermal plume size under peak load conditions; and b) impingement rates and operating techniques for minimizing impingement. These study plans should be developed in conjunction with the Power Plant Siting Program.

Upon the Department's approval of the study plans, an appropriate schedule of compliance for completion will be developed.

D. ADDITIONAL OUTFALLS

The permittee is authorized to discharge once through fish tank overflow through outfall 004 and fish tank filter backwash through outfall 005.



DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201

Area Code 301 • 383

Harry Hughes, Governor

Charles R. Buck, Jr., Sc.D. Secretary

DISCHARGE PERMIT

State Discharge Permit Number	83-DP-2119
NPDES Permit Number	MD0060640
Effective Date	January 2, 1984
Expiration Date	January 2, 1989

Pursuant to the provisions of Title 9 of the Health-Environmental Article, Annotated Code of Maryland and regulations promulgated thereunder and the provisions of the Clean Water Act, 33 U.S.C. 51251 et seq. and implementing regulations 40 C.F.R. Parts 122, 123, 124 and 125, the Department of Health and Mental Hygiene, hereinafter referred to as "DHMH" hereby authorizes

Baltimore Refuse Energy Systems Company
1801 Old Annapolis Road
Baltimore, Maryland 21202

TO DISCHARGE FROM
a resource recovery facility

LOCATED AT
1801 Old Annapolis Road, Baltimore (City), Maryland

VIA OUTFALLS
001, 002, and 003 as identified and described herein

TO
Middle Branch Patapsco River (001, 002) and Gwynns Falls (003) which are classified for water contact recreation, for fish, other aquatic life and wildlife.

in accordance with the following special and general conditions, and map made a part hereof.

I. Special Conditions

A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Beginning on the effective date of the permit and lasting through January 4, 1989 the permittee is authorized to discharge from outfall(s) serial numbers(s) 001 consisting of noncontact cooling water.

Such discharge shall be limited and monitored at (1) by the permittee as specified below:

<u>Constituent</u>	<u>Effluent Limitations</u>			<u>Monitoring Requirements</u>	
	kg/day (lbs/day)	Daily Max.	Monthly Avg.	Daily Max.	Measurement Frequency Sample Type
Flow-M ³ /Day(MGD)	N/A	N/A	N/A	N/A	Continuous Recorded
Intake Temperature	N/A	N/A	N/A	N/A	Continuous Recorded
Effluent Temperature	N/A	N/A	N/A	N/A	Continuous Recorded
ΔT	N/A	N/A	N/A	N/A	1/Month Calculated
Heat	N/A	N/A	N/A	1.0 x 10 ¹⁰ BTU/Day	1/Month Calculated
Sal Residual Chlorine (2)	N/A	N/A	N/A	0.2 mg/l	1/Week when Chlorinating Grab

(1) Temperature shall be monitored by thermal probes installed in the intake and outlet pipes. Chlorine shall be monitored at the chlorine sampling port:

(2) Chlorine may not be discharged for more than 2 hours in any day unless the permittee can demonstrate that the plant cannot operate at or below this level of chlorination.

I. Special Conditions

A2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Beginning on the effective date of the permit and lasting through January 2, 1989 the permittee is authorized to discharge from outfall(s) serial numbers(s) 002 and 003 consisting of fish return water and intake screen spray water respectively.

Such discharge shall be limited and monitored at outfalls by the permittee as specified below:

<u>Constituent</u>	<u>Effluent Limitations</u>			<u>Monitoring Requirements</u>		
	<u>kg/day (lbs/day)</u>		<u>Other Units (Specify)</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	
Flow-M ³ /Day(MGD)	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	1/Quarter	Estimate
	N/A	N/A	N/A	N/A		

I. Special Conditions

B. DEFINITIONS

1. The "daily maximum" effluent limitation by concentration means the highest allowable reading of any daily determination of concentration.
2. "Daily determination of concentration" means one analysis performed on any given sample representing 24 hours flow, with one number in mg/l as an outcome.
3. "Grab Sample" means an individual sample collected in less than 15 minutes.
4. The "monthly average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during any calendar month, or during the operating month if flows are of shorter duration.
5. The "daily maximum" temperature means the highest temperature observed during a 24-hour period or during the operating day if flows are of shorter duration.
6. "Estimated" flow means a calculated volume or discharge rate which is based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.

C. POST OPERATIONAL STUDIES

Within 3 months of the effective date of issuance of this permit, the permittee shall submit to the Department for approval study plans to investigate: a) the thermal plume size under peak load conditions; and b) impingement rates and operating techniques for minimizing impingement. These study plans should be developed in conjunction with the Power Plant Siting Program.

Upon the Department's approval of the study plans, an appropriate schedule of compliance for completion will be developed.

APPENDIX B

Legal Opinions on the Permit
Renewal Process for Thermal Discharges



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

ATTACHMENT A

FEB 24 1982

OFFICE OF
GENERAL COUNSEL

MEMORANDUM

SUBJECT: Legal Opinion on §316 of the Clean Water Act

FROM: Gail B. Cooper, Attorney
Water & Solid Waste Division (A-131) *G.B. Cooper*

TO: Joseph J. Zedrosser
Regional Counsel
Region II

THRU: Bruce M. Diamond *BMD*
Acting Associate General Counsel
Office of General Counsel (A-131)

You requested that this office prepare a legal opinion on several permit-related issues pertaining to §316 of the Clean Water Act (CWA). This memorandum is our response to your request. A previous draft was discussed with Wendy Fodge of your staff.

Richard Stoll has left EPA so you should address any future §316 questions to me. My number is FTS 426-3246.

QUESTION 1

Where a permittee requests and is granted a thermal variance pursuant to §316(a) of the Clean Water Act does the variance terminate upon expiration of the NPDES permit term during which it was granted?

Does the response to this question differ depending on whether the permittee had to alter its operation to meet the requirements of the variance?

If the variance does not terminate, and the variance carries over into future renewal permits, does the variance remain in effect

- (a) for an indefinite period of time through all future renewal permits?
- (b) until the permit issuing authority independently determines that there has occurred a significant biological change affecting the assurance of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made?
- (c) until the permit issuing authority independently determines that a significant change has occurred with respect to the thermal loading of the receiving water body (i.e., independent of any biological determination concerning balanced, indigenous populations)?
- (d) until a change occurs in the State thermal criteria for the receiving water body as a result of a valid review of State Water Quality Standards pursuant to §303(c) of the Clean Water Act?
- (e) until the permit issuing authority becomes aware that the effective operating life of the facility from which the thermal discharge emanates will exceed the effective operating life assumed by the permit issuing authority in formulating its decision to initially grant the requested variance?

ANSWER

A §316(a) thermal variance is a permit condition and it terminates at the same time as the NPDES permit of which it is a part expires. This is the rule for all variances and there is nothing in the CWA to suggest a different result for a §316(a) variance. In fact, the Agency's regulations establish procedures for renewal of a §316 variance at the expiration of the permit. See 40 CFR §125.72(c) and the note after §125.72(f). As explained in response to questions 6 and 7, however, there is no requirement that EPA, the State, or applicant start from scratch when renewing a permit.

The response to the question does not differ depending on whether the discharger had to alter its operation to meet the requirements of the variance. Section §316(c) of the statute provides that EPA cannot impose more stringent thermal effluent limitations for certain point sources for a ten year period but these restrictions affect the substantive requirements that can be imposed in a new permit, and not the requirement to renew a permit after five years.

QUESTION 2

If the granting of a variance under §316(a) of the Act remains effective for more than a single permit term, what circumstances other than those indicated in Question 1.(b)-(e) would allow the permit issuing authority to impose different and/or stricter thermal effluent limitations than those allowed in the variance?

ANSWER

There is no need to answer this question.

QUESTION 3

If the duration of a §316(a) variance is limited to a single permit term, or if changed circumstances can result in the imposition of stricter thermal effluent limitations after the granting of a thermal variance request, may the new thermal effluent limitations be proposed for a permit only during the permit issuance comment period?

ANSWER

A public comment period is always necessary when a new or modified thermal variance is proposed. However, as discussed below, a variance may be proposed before, after, or in conjunction with the issuance of a permit.

There is no distinction between the procedures for issuance and renewal of a permit. Therefore, the procedures for renewal of a permit and variance are those appearing in 40 CFR §124 for a new permit. 40 CFR §§124.6 and 124.10 specifically require a public comment period on draft permits, and 40 CFR §124.57(a) requires that public notice of the draft permit contain information about requests for a §316(a) variance.

Normally, a variance request is noticed for public comment at the same time as the draft permit. However, under 40 CFR §124.66(a), a permit applicant may request a final decision on a §316(a) variance before the final permit is issued. An early variance decision is considered as permit issuance and is subject to the same requirements of public notice and comment.

If there is no early variance decision in a state where EPA is the permit issuing authority and the Regional Administrator determines under 40 CFR §124.63 that it would significantly delay the processing of the rest of the permit to process the variance request simultaneously, the variance request may be separated from the rest of the permit. In this case, the Regional Administrator is required to prepare a new

draft permit and give public notice of his tentative determination on the variance. 40 CFR §124.63(a)(3) states that the only matters to be considered at that time are those relating to the variance; thus, issues pertaining to other aspects of the permit are not to be reopened.

The Administrator also may modify a permit during its term if the proposed modification is consistent with 40 CFR §122.15. In such cases, 40 CFR §124.5(c) requires the permit issuing authority to prepare a draft permit under 40 CFR §124.6 and give public notice. It is important to remember that §316(c) of the statute restricts the issuance of more stringent thermal effluent limitations for a ten year period if the discharger modified the point source after 1972, is currently in compliance with effluent limitations issued under sections 301 and 303, and is discharging at a level which assures the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife.

QUESTION 4

Where an EPA-issued permit for which the permittee has timely requested a variance under §316(a) of the Clean Water Act has expired prior to the Regional Administrator's determination, and where EPA has retained permit issuing authority, may EPA grant the requested variance prior to the effective date of a subsequently issued permit (e.g., where significant delay is contemplated prior to issuance of the subsequent permit)? If so, must any special procedure be followed?

ANSWER

EPA may grant a §316(a) variance prior to a final agency decision on a permit application. 40 CFR §§124.63, 124.66, and 125.72(f) establish specific procedures for early decisions on §316(a) variances.

QUESTION 5

Where an EPA-issued permit for which the permittee has timely requested a variance under §316(a) of the Clean Water Act has expired prior to the Regional Administrator's determination and where permit issuing authority has been assumed by a State during the term of the EPA-issued permit,

- (a) may EPA grant the requested variance prior to the effective date of a subsequently issued permit?
If so, must any special procedure be followed?
- (b) may only the permit issuing State issue the determination with respect to the requested variance?

if (b), then

- (c) may the State make a determination with respect to the requested variance prior to the effective date of the permit which it issues? If so, must any special procedure be followed?

ANSWER

(a) The answer to your question depends upon what EPA has arranged with the State. 40 CFR §123.71(d) provides that after an NPDES program is approved, EPA retains jurisdiction over any permit it has issued unless the Memorandum of Agreement with the State provides that the State will assume responsibility. This retention of jurisdiction includes the processing of variance requests. Even where the EPA permit has expired (as in the example you give), EPA may retain jurisdiction until the matter is resolved if the State agrees to that approach.

(b) The answer depends on the terms of the Memorandum of Agreement between EPA and the State. 40 CFR §123.71(d) allows the division of responsibility to be worked out on a state-by-state basis.

(c) The State's own laws or regulations determine whether the State can make a variance decision prior to the effective date of a permit. 40 CFR §124.66 procedures are not binding on States.

QUESTION 6

If a determination applying the criteria of §316(b) of the Clean Water Act is made by the permit issuing authority,

- (a) does that determination control §316(b)-related considerations in subsequently issued permits?
- (b) must the permit issuing authority make a new §316(b)-based determination with respect to each permit by considering best cooling water intake structure technology available for minimizing adverse environmental impact as it exists at the time of formulating conditions to apply through the term of each subsequently issued permit?

- (c) may the permit issuing authority, at its option, make a new §316(b)-based determination with respect to a particular permit by considering best cooling water intake structure technology available for minimizing adverse environmental impact as it exists at the time of formulating conditions to apply through the term of the renewal permit being considered?

ANSWER

This question appears to ask whether EPA is permanently bound by the first determination applying §316(b), particularly with respect to whether the cooling water intake structure reflects the best technology available for minimizing adverse environmental impact. As a general matter, we are aware of nothing in the Act or its legislative history that would indicate that §316(b) determinations are exempt from the general rule that in issuing a new NPDES permit, the expiring permit conditions may be adjusted. Where appropriate 1/, permit conditions can be made more stringent or less stringent. 40 CFR §122.62(1). Therefore, it is not accurate to conclude that a determination made under §316(b) is permanently binding.

At the same time, there is no requirement that either the permit issuing authority or the applicant start from scratch every time a NPDES permit containing §316(b) limitations expires. Indeed, with regard to §316(a) decisions, neither 40 CFR §125.72(c) nor the note after §125.72(f) (the provisions covering the kinds of data to be collected under §316(a)), suggest or require that the application and review process proceed as if there had not been a previous §316(a) variance determination. Presumably, the same would hold true under §316(b).

Language in the preamble to the final 1979 NPDES regulations clarifies EPA's intent in regard to §316(a):

1/ Both §316(c) and §306(d) impose limits on the permit issuing authority's ability to require compliance with stricter standards within ten years of the time a facility is modified or constructed.

The regulations have also been revised to provide that the specific forms of studies prescribed apply only to the initial grant of a section 316(a) variance. In many cases, neither the nature of the thermal discharge nor the aquatic population will have changed since a variance was initially granted. It would therefore be an unnecessary and costly burden on the Agency and dischargers alike to require a full section 316(a) demonstration for each renewal. Section 125.72 accordingly gives the Director the flexibility to require substantially less information in the case of renewal requests. This does not mean, however, that the Director may not require a full demonstration for a renewal in cases where he has reason to believe that circumstances have changed, that the initial variance may have been improperly granted, or that some adjustment in the terms of the initial variance may be warranted. Persons holding such a variance should, of course, be prepared to justify its continuation with studies based on actual operating experience, and a comment has been added to that effect. 44 FR 32894 (June 7, 1979).

The same logic applies to §316(b).

QUESTION 7

Under what circumstances, if any, may EPA or a NPDES State be barred from requiring a permittee to perform additional or updated biological monitoring or studies (with respect to §316(b) of the Act), or thermal modeling, monitoring, or studies (with respect to §316(a) of the Act) as a condition of subsequently issued permit?

ANSWER

Neither EPA nor the NPDES state is barred from requiring additional §316 studies as a condition to renewing a variance or permit. 40 CFR §125.72(c) specifically authorizes the permit issuing authority to require applicants for variance renewals to submit the types of information described in 40 CFR §125.72(a) and (b) and §124.73(c)(1). Further, the note at the end of 40 CFR §125.72 states that a discharger seeking to renew a §316(a) variance should be prepared to support continuance of the variance with studies based on the discharger's actual operating experience. Thus, while applicants are not required to submit the detailed plan of study required by 40 CFR §125.72(b), EPA can request information and studies it believes are necessary for a §316(a) demonstration. However, requests for information must be made within 60 days of receipt of the application.

With respect to §316(b) determinations, there is no specific provision addressing EPA's ability to obtain additional data. EPA would have the authority to obtain information to the extent authorized by §308 of the Act. 40 CFR §122.7(h) also allows EPA or the NPDES State to require permittees to furnish permit-related information upon request. Since variances are incorporated into permits, this can be construed to cover information pertinent to renewal of the variance.

cc: Wendy Fodge, Region II
Bill Jordan, Office of Water Enforcement
and Permits

APPENDIX C

Study Methods Recommended for the 1989-1991 Macroplankton
Surveys and the Long-term Beach Seine Monitoring Program
Recommended for the 1989 BRESKO NPDES Permit

The scope of the recommended macroplankton survey should be sufficient to define the spatial and temporal distributions and densities of macroplankton at risk to entrainment. We recommend that macroplankton samples be collected from locations in the Lower Middle Branch at the mouth of Gwynns Falls upstream of the BRESKO intakes, in the vicinity of the BRESKO intakes, near the BRESKO discharge, and near the Hanover Street Bridge; at a location in the Upper Middle Branch near the mouth of the Patapsco River; and at a location in Middle Baltimore Harbor near the Key Bridge. The macroplankton surveys should be initiated in 1989 and should cover a period of two years to provide a rough estimate of year-to-year variation in early life stages of RIS fish in the Middle Branch. We recommend macroplankton samples be collected on a monthly schedule from early spring (late March) to early fall (September). At each sampling location at least two replicate 50 m³ plankton tows should be collected with a 1-m² Tucker trawl, or equivalent sampler. A 0.5-mm plankton net should be used, and surface and bottom samples should be collected at each sampling location, when possible. Macroplankton samples should be collected at night when early life stages of RIS fish vulnerable to entrainment are most easily captured.

The scope of the recommended beach seine monitoring program should be sufficient to assess if relative abundance of nearshore RIS fish resources in the Middle Branch increases, decreases, or remains the same over the duration of the 1989 BRESKO NPDES permit. We recommend this monitoring program be initiated in spring 1989 and continue until 1994. The beach seine monitoring program should take monthly samples of RIS fish and crabs at locations in the lower Middle Branch in the mouth of Gwynns Falls upstream of the BRESKO intakes, in the vicinity of the BRESKO intakes, near the the BRESKO discharges, and near the Hanover Street Bridge; at a location in the Upper Middle Branch near the mouth of the Patapsco River; and at a location in Middle Baltimore Harbor near the Key Bridge. The sampling methods for the beach seine monitoring program should be similar to those used by the MDNR Juvenile Index Survey as well as any other seining studies that have been conducted in the region (e.g., Kazyak et al. 1988).

Versar INC.

ESM Operations

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